

What is claimed is:

1. A remote control engine starting device for a vehicle having an immobilizer and a remote engine starter and equipped with a remote engine starting function for  
5 starting an engine when an engine start command is given from a remote location, wherein

said immobilizer comprises an  
interrogating signal outputting section which outputs an  
interrogating signal when a signal related to engine  
10 starting is received, and an engine start permitting  
section which gives engine start permission when a remote  
engine starter code that said remote engine starter  
outputs in response to said interrogating signal matches  
a remote engine starter verifying code preregistered in  
15 said immobilizer, and

said remote engine starter comprises an  
engine start signal outputting section which outputs a  
signal related to engine starting, and a code outputting  
section which, in response to said interrogating signal,  
20 outputs said remote engine starter code preregistered in  
said remote engine starter.

2. A remote control engine starting device for a vehicle as claimed in claim 1, wherein when a remote  
commander code transmitted from a remote commander  
25 matches a remote commander verifying code preregistered  
in said remote engine starter, said engine start signal  
outputting section of said remote engine starter outputs  
said signal related to engine starting.

3. A remote control engine starting device for a  
30 vehicle as claimed in claim 2, wherein said remote engine  
starter code and said remote commander verifying code are  
the same code.

4. A remote control engine starting device for a  
vehicle as claimed in claim 2, wherein said remote engine  
35 starter code and said remote commander verifying code are  
different codes.

5. A remote control engine starting device for a

vehicle as claimed in claim 1, wherein said immobilizer further comprises an activation signal outputting section which outputs an activation signal to a key cylinder when a signal related to engine starting is received, and an  
5 engine start permitting section which receives a key code output from a key in response to said activation signal, and which gives engine start permission when said key code matches a preregistered code, and wherein

10 said immobilizer includes an interrogating signal outputting section which outputs an interrogating signal to said remote engine starter when an IG key insertion signal is not received but said signal related to engine starting, other than said IG key insertion signal, is received.

15 6. A remote control engine starting device for a vehicle as claimed in claim 1, wherein said immobilizer further comprises an activation signal outputting section which outputs an activation signal to a key cylinder when a signal related to engine starting is received, and an  
20 engine start permitting section which receives a key code output from a key in response to said activation signal, and which gives engine start permission when said key code matches a preregistered code, and wherein

25 said immobilizer includes an interrogating signal outputting section which outputs an interrogating signal to said remote engine starter when said key code is not received in response to said activation signal.

30 7. A remote control engine starting device for a vehicle having an immobilizer and a remote engine starter and equipped with a remote engine starting function for starting an engine when an engine start command is given from a remote location, wherein

35 said immobilizer comprises an activation signal outputting section which outputs an activation signal to a key cylinder when a signal related to engine starting is received, and an engine start permitting section which receives a key code output from a key in

response to said activation signal, and which gives engine start permission when said key code matches a preregistered code, wherein said immobilizer further comprises an interrogating signal outputting section which outputs an interrogating signal, different from said activation signal, when said signal related to engine starting is received, and an engine start permitting section which gives engine start permission when a remote engine starter code that said remote engine starter outputs in response to said interrogating signal matches a remote engine starter verifying code preregistered in said immobilizer, and

said remote engine starter comprises an engine start signal outputting section which outputs a signal related to engine starting when said engine start command is given from a remote location, and a code outputting section which, in response to said interrogating signal, outputs said remote engine starter code preregistered in said remote engine starter.

8. A remote control engine starting device for a vehicle as claimed in claim 7, wherein said immobilizer includes an interrogating signal outputting section which outputs an interrogating signal to said remote engine starter when an IG key insertion signal is not received but said signal related to engine starting, other than said IG key insertion signal, is received.

9. A remote control engine starting device for a vehicle as claimed in claim 7, wherein said immobilizer includes an interrogating signal outputting section which outputs said activation signal when said signal related to engine starting is received, and which outputs an interrogating signal to said remote engine starter when a key code is not received in response to said activation signal.

10. A remote control engine starting device for a vehicle as claimed in claim 7, wherein said immobilizer includes a match/mismatch judging section which outputs

5       said activation signal and interrogating signal when said  
signal related to engine starting is received, and which,  
when said key code is received, determines whether said  
key code matches said preregistered code but, when said  
remote engine starter code is received, then determines  
whether said remote engine starter code matches said  
preregistered remote engine starter verifying code.

10       11. A remote control engine starting device for a  
vehicle as claimed in claim 1, wherein said engine start  
permitting section for giving said engine start  
permission does not give said engine start permission  
when said remote engine starter code has failed to match  
said remote engine starter verifying code a predetermined  
number of times.

15       12. A remote control engine starting device for a  
vehicle as claimed in claim 7, wherein said engine start  
permitting section for giving said engine start  
permission does not give said engine start permission  
when said remote engine starter code has failed to match  
20       said remote engine starter verifying code a predetermined  
number of times.